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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,250	12/29/2000	Hans Carlsson	4015-665	8630
24112	7590	07/27/2005	EXAMINER	
COATS & BENNETT, PLLC			PHAN, TRI H	
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RALEIGH, NC 27602			2661	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary	Application No. 09/751,250	Applicant(s) CARLSSON ET AL.	
	Examiner Tri H. Phan	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 16-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 and 15 is/are allowed.
- 6) ☒ Claim(s) 1,3-11,13 and 16-23 is/are rejected.
- 7) ☒ Claim(s) 2 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment/Arguments

1. This Office Action is in response to the Response/Amendment filed on May 2nd, 2005.

Claims 1-23 are now pending in the application.

Claim Objections

2. Claims 10 and 18 are objected to because of the following informalities:

In regard to claim 10, line 10, the word "the" in front of the term "packet-switched network" should be corrected to the word -- a -- for clarity.

Regarding claim 18, line 1, the status of the claim "Original" should be corrected to -- Currently Amended --.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-11, 13 and 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Faccin et al.** (GPRS and IS-136 Integration for Flexible Network and Services Evolution, June 1999, Nokia Research Center, IEEE Personal Communications, 1070-9916/99, pages 48-54; hereinafter refer as '**Faccin**') in view of **Daly et al.** (U.S.6,393,014; hereinafter refer as '**Daly**').

- In regard to claims 1, 16 and 21, **Faccin** discloses in Figs. 2-5 and in the respective portions of the specification about the method and apparatus for providing the mobile user access to packet data networks, e.g. Internet network, from cellular networks ("*communication network*"; For example see Figs. 3, 5); wherein the general packet radio service 'GPRS' operates with circuit-switched, e.g. the global system for mobile system 'GSM' or PSTN "*circuit-switched network*", for giving access services to their registered mobile user ("*providing communications services to mobile terminals*"; For example see Abstract) to the X.25 or Internet network ("*packet-switched network*"; For example see Figs. 3,5; page 49, first paragraph of 'The GPRS System' section), which have services with request to attach to the selected service networks, and converts media between different protocols (For example see page 50; 11th paragraph of 'The GPRS System' section; **Faccin** does not explicitly disclose about "*first/second messaging protocols*"; however, it is obvious that the signaling/media has to have appropriate protocol in order to transport over the corresponding network, e.g. "*first messaging protocols*" for the circuit-switched network and "*second messaging protocols*" for the packet-switched network, or vice versa, by using the interworking function, e.g. "*formatter*" or "*protocol*

Art Unit: 2661

converter", in the Short message service-Interworking mobile switching center 'SMS-IW MSC', e.g. *"interworking function"*, for example see Figs. 3, 5). **Faccin** does disclose about the different interfaces between the SMS-GMSC and SMS-IW MSC with the BSS via the E and A interface for the circuit-switched network (*"first interface"*), or with the SGSN, GGSN, etc. via Gd, Gn interface for the packet-switched network (*"second interface"*) disclosed in Figs. 3, 5; page 49-50, 'The GPRS System' section, as claimed in claim 16; and where the SMS-GMSC and SMS-IW MSC (*"broadcast message center"*) incorporated with the Short message switching center 'SM-SC' for converting and transporting short messages (*"broadcast messages"*) to/from mobile stations (*"translate broadcast teleservice message from the first messaging protocol into the second messaging protocol"*); wherein the paging message from the mobile or MSC paging message, e.g. *"first messaging protocol used in the circuit-switched network"*, is converted into the SGSN paging message, e.g. *"second messaging protocol used in the packet-switched network"*, for example see Figs. 3, 5; page 50; 11th paragraph); but fails to explicitly disclose about the messages being *"teleservice"* messages. However, such implementation is known in the art.

For example, **Daly** discloses in Figs. 2-6 and in the respective portions of the specification about the system and method for the mobile station communicating with which network it is registered, e.g. cellular or IP networks, converting between protocols and transferring data (*"translate broadcast teleservice message from the first messaging protocol into the second messaging protocol"*); For example see Figs. 2, 4; Abstract; col. 3, lines 15-55; col. 6, lines 38-57; col. 8, lines 48-54) by using the interworking in the MSC (*"IWF"*) as disclosed in col. 5, lines 35-45 (wherein, it is obvious that the *"formatter"* is provided as the interworking

Art Unit: 2661

function in the MSC, in order to translate data into the appropriate format suitable to the network, which the mobile station is connected as disclosed in col. 2, lines 35-55); and about the Teleservice Server ("*broadcast teleservice message center*"; For example see Figs. 2-4) incorporated with the enhanced server for generating notifications and data messages over-the-air to the registered mobile station ("*generating broadcast teleservice message*"; For example see Figs. 2-4; col. 5, lines 16-50) by the use of the message handler application in the teleservice server ("*broadcast message application*"; For example see col. 4, line 44 through col. 5, line 15) as claimed in claim 21.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Daly**, by implementing the Teleservice Server for generating teleservice messages in the **Faccin's** SMS-GMSC and SMS-IWMSC, with the motivation being to provide the ability to transporting the teleservices from the Internet network to the mobile station on a non-IP network as disclosed in **Daly**: col. 1, lines 8-10.

- Regarding claims 3-4, 7, 11, 17, 19 and 22, in addition to features in base claims 1, 16 and 21 (see rationales pertaining the rejection of base claims 1, 16 and 21 discussed above), **Faccin** further discloses about the SGSN in the GPRS network and the Base transceiver station 'BTS' in the Base station subsystem 'BSS' for transporting data with point-to-multipoint support or IP multicast to/from mobile users or terminals ("*General Packet Radio Service*", "*Serving GPRS support node*", "*point-to-multipoint services*"; For example see Figs 3, 5; pages 49,

Art Unit: 2661

paragraphs 1-6 of 'The GPRS System' section; page 53, 'New IP Services'; page 54, paragraph 8 in 'Future Evolution' section).

- In regard to claims 5-6, 8-9, 13, 18, 20 and 23, in addition to features in base claims 1, 16 and 21 (see rationales pertaining the rejection of base claims 1, 16 and 21 discussed above), **Faccin** further discloses about the different interfaces such as A, E, C, Gb, Gs, Gd, Gn, Gp, Gi, Gc between the SMS-GMSC/SMS-IW MSC with BSS or GSM MSC or SGSN or GGSN ("*Gm*", "*Gn*"; For example see Figs. 3, 5).

- Regarding claim 10, **Faccin** discloses in Figs. 2-5 and in the respective portions of the specification about the method and apparatus for providing the mobile user access to packet data networks, e.g. Internet network, from cellular networks ("*communication network*"; For example see Figs. 3, 5); wherein the general packet radio service 'GPRS' operates with circuit-switched, e.g. the global system for mobile system 'GSM' or PSTN "*circuit-switched network*", for giving access services to their registered mobile user, e.g. providing communications services to mobile terminals (For example see Abstract) to the X.25 or Internet network ("*packet-switched network*"; For example see Figs. 3,5; page 49, first paragraph of 'The GPRS System' section), which have services with request to attach to the selected service networks, and converts media between different protocols (For example see page 50; 11th paragraph of 'The GPRS System' section; **Faccin** does not explicitly disclose about "*first/second messaging protocols*"; however, it is obvious that the signaling/media has to have appropriate protocol in order to transport over the corresponding network, e.g. "*first messaging protocols*" for the circuit-switched network and

“second messaging protocols” for the packet-switched network, or vice versa, by using the interworking function in the Short message service-Interworking mobile switching center ‘SMS-IW MSC’, e.g. *“interworking function”*, for example see Figs. 3, 5). **Faccin** does disclose about the SMS-GMSC and SMS-IW MSC (*“broadcast message center”*) incorporated with the Short message switching center ‘SM-SC’ for translating and transporting short messages to/from registered mobile users (*“translate the broadcast teleservice message from the first messaging protocol into the second messaging protocol and transmitting message”*); wherein the paging message from the mobile or MSC paging message, e.g. *“first messaging protocol used in the circuit-switched network”*, is converted into the SGSN paging message, e.g. *“second messaging protocol used in the packet-switched network”*, for example see Figs. 3, 5; page 50; 11th paragraph) through different networks such as packet-switched network such as Internet, X.25, Intra/Inter-PLMN backbone network and circuit-switched network such as Global System for Mobile ‘GSM’, PSTN; but fails to explicitly disclose about the messages being *“teleservice”* messages. However, such implementation is known in the art.

For example, **Daly** discloses in Figs. 2-6 and in the respective portions of the specification about the system and method for the mobile station communicating with which network it is registered, e.g. cellular or IP networks, converting between protocols and transferring data (*“translate broadcast teleservice message from the first messaging protocol into the second messaging protocol”*); For example see Figs. 2, 4; Abstract; col. 3, lines 15-55; col. 6, lines 38-57; col. 8, lines 48-54) by using the interworking in the MSC (*“IWF”*) as disclosed in col. 5, lines 35-45 (wherein, it is obvious that the interworking function in the MSC translates data into the appropriate format suitable to the network, which the mobile station is connected as

Art Unit: 2661

disclosed in col. 2, lines 35-55); and about the Teleservice Server ("*broadcast teleservice message center*"; For example see Figs. 2-4) incorporated with the enhanced server for generating notifications and data messages ("*generating broadcast teleservice message*"; For example see Figs. 2-4; col. 5, lines 16-50), translating and transferring messages over-the-air to the registered mobile station ("*translating broadcast teleservice message from the first messaging protocol into the second messaging protocol and transmitting the message to the mobile terminal*"; For example see col. 2, lines 35-55; col. 4, line 44 through col. 5, line 15).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Daly**, by implementing the Teleservice Server for generating teleservice messages in the **Faccin**'s SMS-GMSC and SMS-IW MSC, with the motivation being to provide the ability to transporting the teleservices from the Internet network to the mobile station on a non-IP network as disclosed in **Daly**: col. 1, lines 8-10.

Response to Amendment/Arguments

5. Applicant's arguments filed on May 2nd, 2005 have been fully considered but they are not persuasive.

In regard to claims 1, 10, 16, and 21, Applicant argues that the combination of **Faccin** and **Daly** fails to disclose about the "*conversion or translation from one protocol to another*". Examiner respectfully disagrees. **Faccin** does disclose about the serving GPRS support node 'SGSN', which converts the MSC paging message into the SGSN paging message, e.g. "*conversion from one protocol to another*", as disclosed in page 50; 11th paragraph. **Daly** also

Art Unit: 2661

discloses about the translating one format message to another appropriate format message 'IS-41 and IS136 protocol message', e.g. "*translation broadcast teleservice message from the first messaging protocol to another messaging protocol*", for transferring to/from the mobile station, e.g. "*deliver broadcast teleservice message to the mobile terminal*", as disclosed in col. 2, lines 35-55; col. 6, lines 38-57; col. 8, lines 48-63; through the use of the interworking function "*IWF*" of the MSC as disclosed in col. 5, lines 35-45; and as disclosed in Part 4 above of this Office action. Therefore, Examiner concludes that combination of **Faccin** and **Daly** teaches the arguable features.

Claims 3-9, 11, 13, 17-20 and 22-23 are rejected as in Part 4 above of this Office action and by virtue of their dependence from claims 1, 10, 16, and 21.

Allowable Subject Matter

6. Claims 2 and 12 are objected to as being dependent upon a rejected base claim (claims 1 and 10), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Räsänen, Juha (U.S.6,192,055), **Bäckström et al.** (U.S.5,903,851) and **Ketola et al.** (U.S.6,879,997) are all cited to show devices and methods for improving data transmission on

Art Unit: 2661

the packet-switched from cellular radio network in the telecommunication architectures, which are considered pertinent to the claimed invention.

8. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272-3126.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Art Unit: 2661

or faxed to:

(571) 273-8300

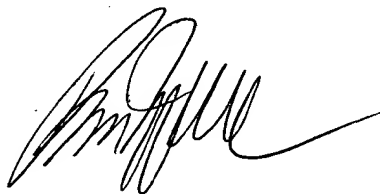
Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tri H. Phan
July 14, 2005



BRIAN NGUYEN
PRIMARY EXAMINER